

REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the amendments above and the arguments set forth fully below. Claims 1-32 were previously pending in this application. Within the Office Action, Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 have been rejected. Accordingly, Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 are currently pending.

Rejections under 35 U.S.C. §103

Within the Office Action, Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,253,188 issued to Witek et al. (hereinafter “Witek”) in view of U.S. Patent No. 6,421,661 to Doan et al. (hereinafter “Doan”) and further in view of U.S. Patent No. 5,604,772 to Botto et al. The applicant respectfully disagrees.

Witek teaches a system and method for providing classified ads over the Internet. Internet users can connect to a Newspaper web server and central Web application server to search for and obtain classified ads. Ad records are stored in ad database servers 20 for providing classified ad records on request to application servers 16. To search the ad records, the search process is divided into two principle parts. The first part includes a system entry and pre-selection sequence, and the second part includes a record selection sequence (Witek, col. 12, lines 10-13). More specifically, in the first part the user enters the system and specifies the category of classified ads to be searched. Thereafter, as the user navigates to the respective selected category, the user further specifies a subcategory for the particular category selected (Witek, col. 12, lines 27-37). The selected category and subcategory pair is identified by a category/subcategory ID 46. The second part of the search process includes entering a formal record selection query containing the specific parameters for the ad records the user wishes to see. The specific parameters are entered as primary selection parameters 60 and as secondary selection parameters 62. In summary, the first part of the search process is limited to performing searches based on category, or in other words a hierarchical search (Witek, col. 13, lines 30-46). During this first *utilization* of the search system of Witek, the user is *only* able to specify a category and subcategory pair. The second part of the search process is limited to performing searches based on entered parameters, in other words keyword search or parametric search.

During this second *utilization* of the search system of Witek, the user is *only* able to perform searches based on entered parameters.

As discussed above, Witek teaches that the user first navigates through the system and specifies a category and subcategory to narrow down the number of records to search. [Witek, col. 12, lines 27-37] According to the teachings of Witek, during this first part of the search process, only the category and subcategory search methodologies are available. Witek then teaches that the second part of the search process includes entering a formal record selection query containing the specific parameters for the ad records the user wishes to see. [Witek, col. 17, lines 42-50] No other search methodologies are available during the second part of the search process. Witek does not teach that during the first part or the second part of the search process, each of the search methodologies are available. Accordingly, Witek does not teach that each utilization of the search module includes the availability of all types of available searches.

As recognized within the Office Action, Witek does not teach a dichotomous key search. Further, Witek does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, Witek does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database. As discussed above, Witek teaches that during the first part of the search process only the category and subcategory are specified and during the second part of the search process only searches based on entered parameters are available.

Doan teaches a hierarchical query syntax for inquiring and selecting among database objects. As recognized within the Office Action, Doan does not teach a dichotomous key search. Further, Doan does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, Doan does not teach that any of a keyword search, hierarchical search, dichotomous key search and parametric search can be used at any location within the database.

Accordingly, neither Witek, Doan nor their combination teaches a dichotomous key search. Further, neither Witek, Doan nor their combination teaches performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Specifically, neither Witek, Doan nor their combination teaches that any of a keyword search, hierarchical search, dichotomous

key search and parametric search can be used at any location within the database. Further, neither Witek, Doan nor their combination teaches that each access of a searchable database includes availability of each search.

Botto teaches a transmission system and modem utilizing coded modulation. Botto appears to be cited because of its teaching of a zone searching module which determines a searched zone by dichotomy. Botto also does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. There is no motivation to warrant the combination of Witek, Doan and Botto. There is no hint, teaching or suggestion in either of Witek, Doan or Botto to warrant their combination.

This is a classic case of impermissibly using hindsight to make a rejection based on obviousness. The Court of Appeals for the Federal Circuit has stated that “it is impermissible to use the claimed invention as an instruction manual or ‘template’ to piece together the teachings of the prior art so that the claimed invention is rendered obvious.” In Re Fritch, 972 F.2d, 1260, 1266, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992). As discussed above, Witek, Doan and Botto do not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search, as claimed. As recognized within the Office Action, neither Witek nor Doan teach a dichotomous key search. Botto does teach a zone searching module which determines a searched zone by dichotomy. Within the Office Action, it is stated that

[i]t would have been obvious to one with ordinary skill in the art at the time the invention was made to apply the teaching of Botto into the invention of Witek/Doan because the combination would reduce the memory access when using binary search, and providing user more search methodologies. [Office Action, page 4]

It is only with the benefit of the present claims, as a “template” that there is any motivation to combine the data modem of Botto with the classified ad system of Witek and the hierarchical query syntax of Doan. No such motivation can be found in the teachings of any of the references. To conclude that the combination of Witek, Doan and Botto is obvious, based on the teachings of these references, is to use hindsight based on the teachings of the present invention and to read much more into Witek, Doan and Botto than their actual teachings. This is simply not permissible based on the directive from the Court of Appeals for the Federal Circuit.

It is well settled that to establish a *prima facie* case of obviousness, three basic criteria must be met:

- 1) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
- 2) there must be a reasonable expectation of success; and
- 3) the prior art reference, or references, must teach or suggest all the claim limitations. MPEP § 2143.

The burden of establishing a *prima facie* case of obviousness based on the teachings of Witek, Doan and Botto has not been met within the Office Action.

There is no motivation to combine the teachings of Botto with either Witek or Doan. Botto relates to a transmission system and modem utilizing coded modulation. Botto teaches that the zone searching module determines the zone of the reference quadrant by dichotomy according to an algorithm. [Botto, col. 5, lines 26-29] Botto is only cited because it teaches searching by dichotomy. There is no hint, teaching or suggestion in either Botto, Witek or Doan to motivate one skilled in the art to combine their teachings. It is only with the benefit of the presently claimed invention as a “template” that one would consider combining the dichotomous search of Botto with the classified ad system of Witek and the hierarchical query syntax of Doan.

Even if considered proper, the combination of Witek, Doan and Botto does not teach performing a search in which for any given searching step, at any location within the database, four different search methodologies are available to be used to perform the search. Neither, Witek, Doan, Botto nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

In contrast to the teachings of Witek, Doan and Botto, the method of and apparatus for performing a research task of the present invention, interchangeably utilizes a multitude of search methodologies. Specifically, utilizing a search module, a user is able to selectively utilize one or more search methodologies including keyword search, hierarchical search, dichotomous key search and parametric search to correlate a search criteria to a searchable database for generating one or more matching items. It is further taught within the present specification that

[a]t each node within the tree, the user is presented with the option of using any one or combinations of the four search methodologies utilized by the research

system. The four search methodologies are keyword search, hierarchical tree search, dichotomous key search, and parametric search. Regardless as to which search methodology or search methodologies are used to reach a particular node, the user can utilize any of the four search methodologies to further refine the search and move further down the directory tree structure. The user may also navigate back up the directory tree structure to a higher node, and once again have the option to use any of the four search methodologies to refine the search from the current node and move further down the directory tree structure. [Present Specification, page 39, line 23 - page 40, line 4].

Therefore, a user is able to navigate the directory tree structure, utilizing any one of the four search methodologies in any combination to reach the desired result. As discussed above, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

Within the Response to Arguments section of the Office Action, it is stated that

Applicant does not clearly claim that “at any step location within the database, four different methodologies are available to be used to perform the search.” Instead, Applicant claims “wherein each utilization of the search module includes the availability of each search.” Therefore, if the Witek reference discloses one of the methods and the method is available for the search process, then the Witek still can apply to the invention. [Office Action, page 5]

The Applicant respectfully disagrees. It is specified within the claims that the search module includes a keyword search, a hierarchical search, a dichotomous key search and a parametric search. This limitation requires that ***all four*** of the search capabilities are present within the search module. In order to properly be applied to the claimed invention, the cited reference(s) must teach or make obvious ***all four*** of the search capabilities. It is further specified within the claims that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search. Utilization is defined as “to put to use for a certain purpose.” [The American Heritage Dictionary] Just as taught within the specification, the limitation that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search, specifies that *every time* the search module is used, each of the four search capabilities (keyword search, hierarchical search, dichotomous key search and parametric search) are available. Neither Witek, Doan, Botto nor their combination teach such a search

module. As discussed above, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes the availability of the keyword search, the hierarchical search, the dichotomous key search and the parametric search.

The independent Claim 1 is directed to a method of accessing data within a research system by an application external to the electronic system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language, wherein accessing one or more nodes is performed utilizing a search module, further wherein the search module includes a keyword search, a hierarchical search, a *dichotomous key search* and a parametric search, and further wherein *each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 1 is allowable over Witek, Doan, Botto and their combination.

Claims 2-7 depend on the independent Claim 1. As described above, the independent Claim 1 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 2-7 are all also allowable as being dependent on an allowable base claim.

The independent Claim 9 is directed to research system for providing access to a searchable database by an application external to the research system. The research system comprises means for formatting the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links

between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and means for an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language, wherein the means for accessing one or more nodes utilizes a search module, further wherein the search module includes a keyword search, a hierarchical search, a *dichotomous key search* and a parametric search, and further wherein *each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 9 is allowable over Witek, Doan, Botto and their combination.

Claims 10-15 depend on the independent Claim 9. As described above, the independent Claim 9 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 10-15 are all also allowable as being dependent on an allowable base claim.

The independent Claim 17 is directed to research system for providing access to a searchable database by an application external to the research system. The research system comprises a research server configured to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the

external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language, wherein the research server accesses the one or more nodes by utilizing a search module, further wherein the search module includes a keyword search, a hierarchical search, a *dichotomous key search* and a parametric search, and further wherein *each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 17 is allowable over Witek, Doan, Botto and their combination.

Claims 18-23 depend on the independent Claim 17. As described above, the independent Claim 17 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 18-23 are all also allowable as being dependent on an allowable base claim.

The independent Claim 25 is directed to network of devices for providing access to a searchable database by an application external to the research system. The network of devices comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format the searchable database into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system to access one or more nodes within the directory tree structure and to obtain data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the external application formats a query language string using the API such that the formatted query language string is used directly by the research system to access the directory tree structure and obtain data from the searchable database specified by the query language string, further wherein the query language string is a command string written according to a query language, wherein the research server accesses the one or more nodes by utilizing a

search module, further wherein the search module includes a keyword search, a hierarchical search, a *dichotomous key search* and a parametric search, and further wherein *each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 25 is allowable over Witek, Doan, Botto and their combination.

Claims 26-29 depend on the independent Claim 25. As described above, the independent Claim 25 is allowable over Witek, Doan, Botto and their combination. Accordingly, Claims 26-29 are all also allowable as being dependent on an allowable base claim.

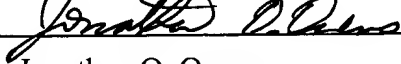
The independent Claim 31 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the research system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein the applications programming interface accesses the one or more nodes within the directory tree structure using a query language string, further wherein the query language string is a command string written according to a query language that defines a navigation path through the directory tree structure to access a specific node within the directory tree structure, wherein accessing one or more nodes is performed utilizing a search module, further wherein the search module includes a keyword search, a hierarchical search, a *dichotomous key search* and a parametric search, and further wherein *each utilization of the search module includes availability of each search*. As discussed above, neither Witek, Doan, Botto nor their combination teach a dichotomous key search. Further, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 31 is allowable over Witek, Doan, Botto and their combination.

The independent Claim 32 is directed to a method of accessing data within a research system by an application external to the research system. The method comprises formatting a searchable database within the electronic system into a directory tree structure, wherein the directory tree structure includes nodes comprising related data and branches comprising links between the nodes, wherein each related item of data is categorized by a navigation path through the directory tree structure and by one or more parameters, each parameter is set with a corresponding value associated with the data item thereby forming a set parameter, wherein the parameters are specific to the node in which the related data is included, and an external application different than the research system accessing one or more nodes within the directory tree structure and obtaining data from the one or more nodes by utilizing an applications programming interface (API) associated with the research system, wherein accessing one or more nodes is performed utilizing a search module, the search module includes a keyword search, a hierarchical search, a dichotomous key search, and a parametric search and further wherein *each utilization of the search module includes availability of each search*. As discussed above, the combination of Witek, Doan and Botto is not proper. Further, even if considered proper, neither Witek, Doan, Botto nor their combination teach that each utilization of the search module includes availability of each search. For at least these reasons, the independent Claim 32 is allowable over Witek, Doan, Botto and their combination.

For the reasons given above, Applicant respectfully submits that Claims 1-7, 9-15, 17-23, 25-29, 31 and 32 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR § 1.8(a))

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